

I claim:

1. A method of determining a printing color profile for printing with N printing inks forming a color solid of printable colors in a device-independent color system, which comprises:

defining an inner reference curve in the device-independent color system by selecting one of the group consisting of a printing ink and a combination of printing inks;

defining boundary surfaces between the inner reference curve and an outer envelope of the color solid subdividing the color solid into color sectors by producing first test forms, the first test forms being colorimetrically printed and measured;

producing second test forms for the color sectors, the second test forms being colorimetrically printed and measured; and

determining the printing color profile from measured values from the second test forms.

2. The method according to claim 1, which further comprises defining the inner reference curve by the printing ink black.

3. The method according to claim 1, which further comprises defining the inner reference curve by a combination of printing inks.
4. The method according to claim 1, wherein the inner reference curve lies in a region of neutral colors.
5. The method according to claim 2, wherein the inner reference curve lies in a region of neutral colors.
6. The method according to claim 3, wherein the inner reference curve lies in a region of neutral colors.
7. The method according to claim 1, wherein the first test forms contain color fields in which proportions of the printing inks selected for the inner reference curve and of one colored printing ink are varied.
8. The method according to claim 1, wherein the first test forms contain color fields, and which further comprises varying, in the color fields, proportions of the printing inks selected for the inner reference curve and of one colored printing ink.
9. The method according to claim 1, wherein:

the first test forms contain color fields in which proportions of the printing inks selected for the inner reference curve and of two colored printing inks are varied; and

a hue of the two colored printing inks are approximately equal.

10. The method according to claim 1, wherein:

the first test forms contain color fields in which proportions of the printing inks selected for the inner reference curve and of two colored printing inks are varied; and

a hue of the two colored printing inks are substantially equal.

11. The method according to claim 1, wherein the first test forms contain color fields, and which further comprises varying, in the color fields, proportions of the printing inks selected for the inner reference curve and of two colored printing inks, a hue of the two colored printing inks being approximately equal.

12. The method according to claim 1, wherein the first test forms contain color fields, and which further comprises varying, in the color fields, proportions of the printing inks

selected for the inner reference curve and of two colored printing inks, a hue of the two colored printing inks being substantially equal.

13. The method according to claim 1, wherein the second test forms contain color fields in which proportions of the printing inks selected for the inner reference curve and of two colored printing inks are varied.

14. The method according to claim 1, wherein the second test forms contain color fields, and which further comprises varying, in the color fields, proportions of the printing inks selected for the inner reference curve and of two colored printing inks.

15. The method according to claim 1, wherein:

the second test forms contain color fields in which proportions of the printing inks selected for the inner reference curve and of three colored printing inks are varied; and

two of the three colored printing inks have an approximately identical hue.

16. The method according to claim 1, wherein:

the second test forms contain color fields in which proportions of the printing inks selected for the inner reference curve and of three colored printing inks are varied; and

two of the three colored printing inks have a substantially identical hue.

17. The method according to claim 1, wherein the second test forms contain color fields, and which further comprises varying, in the color fields, proportions of the printing inks selected for the inner reference curve and of three colored printing inks, two of the three colored printing inks having an approximately identical hue.

18. The method according to claim 1, wherein the second test forms contain color fields, and which further comprises varying, in the color fields, proportions of the printing inks selected for the inner reference curve and of three colored printing inks, two of the three colored printing inks having a substantially identical hue.

19. The method according to claim 1, which further comprises:

describing the printing color profile in the form of a table;  
and

assigning, in the table, printing color values of the printing inks with which predefined colors can be printed to predefined device-independent color values.

20. The method according to claim 1, wherein the printing color profile is a table having predefined device-independent color values assigned to printing color values of the printing inks with which predefined colors can be printed.

21. A method of determining a printing color profile for printing with N printing inks forming a color solid of printable colors in a Lab color system, which comprises:

defining an inner reference curve in the Lab color system by selecting one of the group consisting of a printing ink and a combination of printing inks;

defining boundary surfaces between the inner reference curve and an outer envelope of the color solid subdividing the color solid into color sectors by producing first test forms, the first test forms being colorimetrically printed and measured;

producing second test forms for the color sectors, the second test forms being colorimetrically printed and measured; and

determining the printing color profile from measured values from the second test forms.